

Date: Tuesday, 3/11/2008 11:26:33 AM
 User: Kim Johnston

Process Sheet

15

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : LONG STEP ASSEMBLY HIGH SKID LH
 Job Number : 37795
 Estimate Number : 10270
 P.O. Number :
 This Issue : 3/11/2008 S.O. No. :
 Prsht Rev. : NC
 First Issue : / / Type : LARGE FAB ASSY
 Previous Run : 37616
 Written By :
 Checked & Approved By : 08 03 11
 Comment : Est Rev:A 04.03.22 New issue KJ/RF
 Est Rev:B 07-06-09 Added D3272-1 JLM

Part Number : D350591311
 Drawing Number : D3272 REV B
 Project Number : N/A
 Drawing Revision : B
 Material :
 Due Date : 4/7/2008 Qty: 10 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-311 CHG004-002 per ECN1164 08/04/05 JLD

2.0 D32721 STEP



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

STEP

BATCH: 337639

08-04-09 10

3.0 D30671 End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3067-1 End Plate 337571

08-04-09 10

4.0 D32191 Support



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3219-1 Support 337932

Total support is 21
 one was cracked

08-04-09 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



PTO

Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod *M106834*
M106762

3-Grind End Plate flush

08-04-09 10
08-04-09 10
3AD 08/04/10 (10)

6.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

08-04-10 (10)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/04/10 (10)

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

08/04/11 (10)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

08-04-13 10

10.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number Description Batch
1 D3065-041 Step Leg Assy *35624*

08-04-13 10

11.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

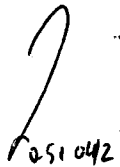
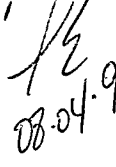
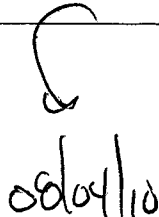

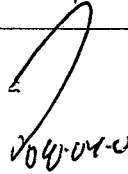
Qty Part Number Description Batch
2 D3066-1 Spacer *337278*

08-04-13 10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-591-311 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR: 37795		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08-04-09	5.0	1 x D3219-1 (B37932) cracked at the inside bottom, about 250" from the end. A slight blowout was apparent on the lug, from the water jet, which could have caused the crack	 Q51042	remove and replace 1x D3219-1 lug B <u>37932</u> , and re-weld per dwg, and Q51042. Material certs are confirming, as well as 6061-T6 hardness.	 08-04-09	 08-04-10	 Q51042	 08-04-09

NOTE: Date & initial all entries

Date: Tuesday, 3/11/2008 11:26:33 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total: 160.0000 Each(s)

Pick:

Qty Part Number Description Batch

16 MS20600AD4W4 Rivet 1107063

Ph 08.04.13 10

13.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble Leg Assembly as per Dwg D3272.

Leave one rivet out until welding is complete.

Ph 08.04.13 10

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/04/14 (1064)

15.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3067-1 End Plate 331571

Ph 08.04.13 10

16.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod 1106834

4-Grind End Plate flush

5-Install last rivet as per Dwg.

Ph 08.04.13 10
Ph 08.04.13 10
Ph 08.04.13 10
Ph 08.04.14 10
Ph 08.04.15 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Date: Tuesday, 3/11/2008 11:26:33 AM
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Process Sheet

30 min

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

17/04/2008

S.035

#1 322.4

#2 D350591317

#3 B37795

#4

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #.	Machine Or Operation:	Description
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17.0	QC9	VISUAL WELDING INSPECTION
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Comment: VISUAL WELDING INSPECTION

AD 08-04-15 (10)

18.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

5 08/04/15 (10xH)

19.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1
touch up alodine

FL 08/04/15 (10)

20.0	POWDER COATING	POWDER COATING
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Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M107550

FL 08/04/17 (10)

21.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1
Wing Walk as per Dwg D3272 and QSI 005 4.4

M106894

M-1 08/04/17

22.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
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Comment: Inspect Powder Coat and Wing Walk

FL 08/04/17 (10)

23.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
Pick Packing Kit

24.0	D22303	Mounting Lug
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Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick: Packing Kit

QtyPart Number Description Batch

4 D2230-3 Mounting Lug B37702

FL 08/04/16 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description:

25.0

D2618

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2618

Bushing B35628

26.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 6.0000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2856-400-720 Abrasion Strip 36161

27.0

D32351

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D3235-1 Mounting Lug B33297

28.0

D3278041

Support Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3278-041 Support Assembly B36811

29.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A Bolt M106993

30.0

AN413A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-13A Bolt M107321

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN536A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN5-36A

Bolt

M106993 YK

M107013 10X

32.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

M157534

33.0

AN960JD416

Washer



Comment: Qty.: 16.0000 Each(s)/Unit Total : 160.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 AN960JD416

Washer

M106790

34.0

AN960JD516

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD516

Washer

M107008

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

M106883

6/4/10 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 37795

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4

Nut (or -4)

M/06825

37.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L5

Nut (or -5)

M/06785

38.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

39.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-311

Location:

Rev C

AS 08/04/18 (X10)

40.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



376 1 x D519410-011 B.38273

8/4/16 (X10)
per ECN 1164

mr- 08-04-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>qp</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED07.06.04 *[Signature]*

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

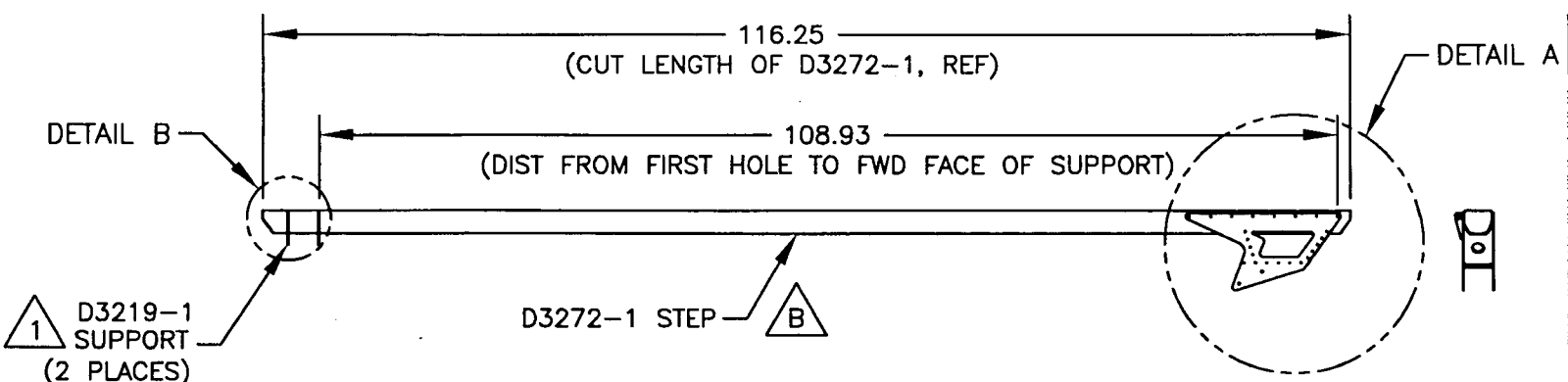
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 37795

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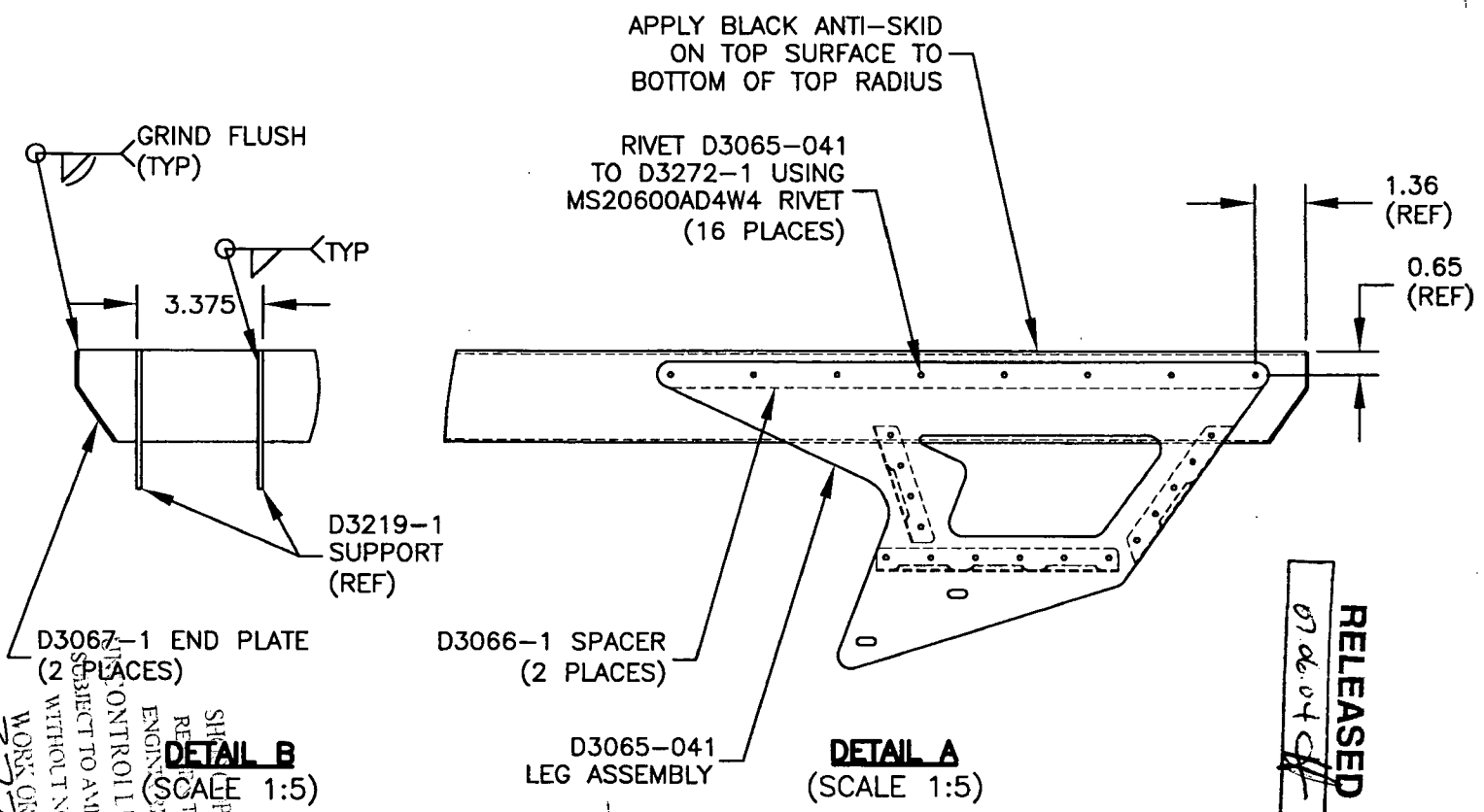
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DESIGN	49	DRAWN BY	49	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	CE	APPROVED	CE	DRAWING NO. D3272	SHEET 2 OF 3
DATE	07.05.18	TITLE	STEP ASSEMBLY, HI LONG	SCALE	1:20



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



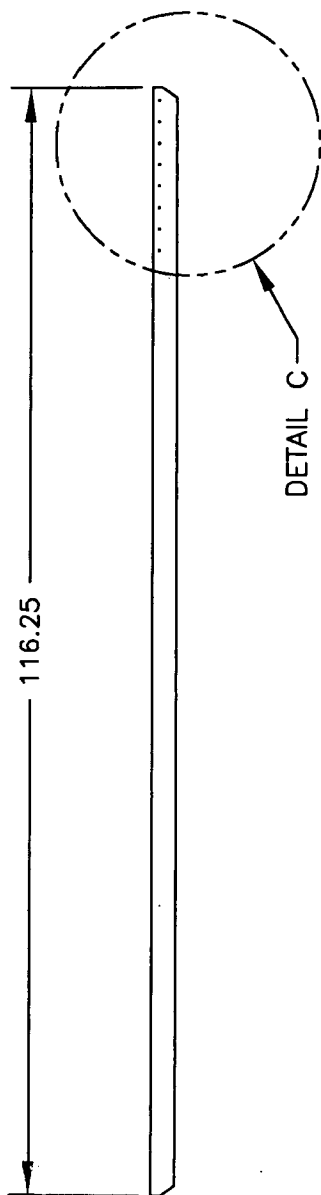
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WITHOUT NOTICE
WORK ORDER NO. 37795



DESIGN <i>GP</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

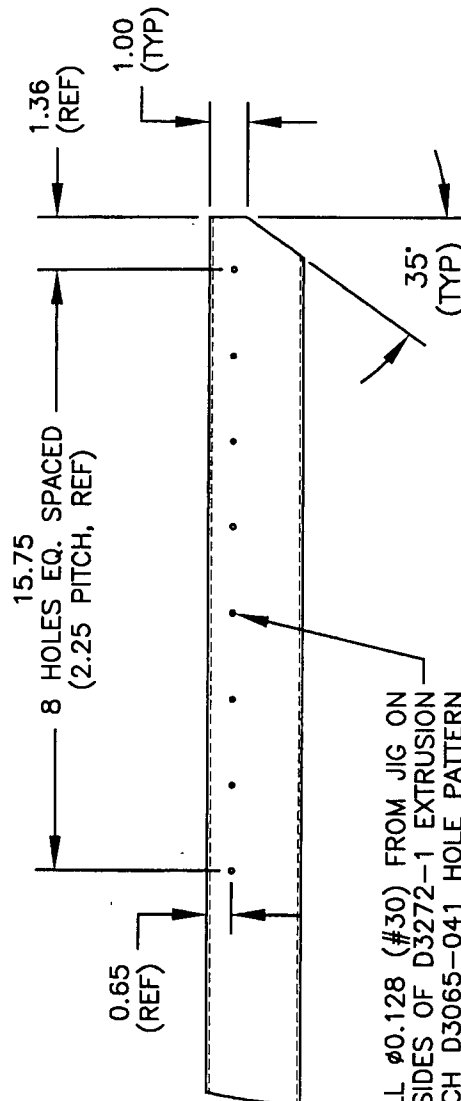
07.06.04 *[Signature]*



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DETAIL C
(SCALE 1:5)

DRILL $\phi 0.128$ (#30) FROM JIG ON
BOTH SIDES OF D3272-1 EXTRUSION
TO MATCH D3065-041 HOLE PATTERN

SHOP COPY
RETURN TO
ENGINEERING
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NO 37795

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